

METHOD AND APPARATUS FOR PARTITIONING RESOURCES WITHIN A COMPUTER SYSTEM

ABSTRACT

A system that partitions computer system resources between concurrently executing workloads. The system operates by establishing a first resource pool that specifies requirements for different computer system resources. Next, the system allocates the different computer system resources to one or more resource pools, including the first resource pool, to create a resource allocation, wherein requirements of the first resource pool are satisfied, and wherein resources allocated to the first resource pool can change over time. The system then binds a first process to the first resource pool, so that the first process has access to the plurality of different computer system resources allocated to the first resource pool. In one embodiment of the present invention, while allocating different computer system resources, the system partitions computer system resources into one or more partitions, wherein a first partition is associated with a first resource and a second partition is associated with a second resource. The system then allocates the first partition to a single resource pool, so that only processes associated with the single resource pool can access the first partition. At the same time, the system allocates the second partition to multiple resource pools so that processes associated with the multiple resource pools can share the second partition.